Generell informasjon

Brønnbane navn	2/8-13
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Brønn navn	2/8-13
Seismisk lokalisering	ANO 8701 - 36 SP 310
Utvinningstillatelse	006
Boreoperatør	Amoco Norway Oil Company
Boretillatelse	607-L
Boreinnretning	DYVI STENA
Boredager	55
Borestart	29.04.1989
Boreslutt	22.06.1989
Frigitt dato	22.06.1991
Publiseringsdato	27.02.2004
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	SHOWS
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	68.7
Totalt målt dybde (MD) [m RKB]	1940.0
Totalt vertikalt dybde (TVD) [m RKB]	1939.0
Maks inklinasjon [°]	5.4
Temperatur ved bunn av brønnbanen [°C]	96
Eldste penetrerte alder	LATE PERMIAN
Eldste penetrerte formasjon	ZECHSTEIN GP
Geodetisk datum	ED50
NS grader	56° 23' 21.65'' N
ØV grader	3° 23' 57.58'' E
NS UTM [m]	6249624.57
ØV UTM [m]	524655.38
UTM sone	31
NPDID for brønnbanen	1383

Brønnhistorie

General

Exploration well 2/8-13 was designed to test the Tertiary and Upper Cretaceous chalks overlying a salt induced domal feature, unofficially named Mode, in the western part of block 2/8. The objectives were to test the possible hydrocarbon accumulation contained within the Tertiary and Upper Cretaceous chalks of the Ekofisk, Tor and Hod Formations; to determine the reservoir quality of the Shetland Group over the structure; to determine the chalk stratigraphy over the Mode salt dome; and to acquire a VSP to help to image the chalk distribution and thickness over the Mode feature.

The well was planned to penetrate the Shetland Group on a structurally high at the northern flank of the Mode salt feature. Shallow gas was expected at 507- 590- and 730 m.

Operations

Wildcat well 2/8-13 was spudded with the semi-submersible installation Dyvi Stena on 28 April 1989 and drilled to TD at 1940 m in the Permian Zechstein Group. The well was drilled with seawater / gel / polymer down to 380 m, with PHPA/PAC mud from 380 m to 1253 m, with PHPA/PAC/ANCOMEL mud from 1253 m to 1457 m, with PHPA/PAC/NaCl mud from 1457 to 1758 m, and with NaCl/PAC mud from 1758 m to TD. Shallow gas was encountered at the prognosed depths, and controlled with heavy mud. Shallow gas encountered in sands at 828 m, caused the well to flow. The flow was killed with heavy mud, and caused no injuries or damages. The drill pipe got stuck, and had to be shot of above the BHA, which than was cemented in. The well was kicked off for the 2/8-13 sidetrack at 412 m.

The Paleocene section was thinner than expected, with Balder Sele and part of the Lista Formations missing. The gas cloud above the structure caused some difficulties as to predicting formation depths and velocity correlations across the structure. The well drilled directly from Upper Cretaceous to Permian rocks. The Shetland Group came in 220 m higher than prognosed and was 9.5 m thick, compared to prognosed 270 m. No biostratigraphic evidence for the Hod, Blodøks, or Hidra Formations was found, nor of the Lower Cretaceous, Jurassic, or Triassic rocks. Shows were observed on cuttings and sidewall cores throughout the well below 700 m. An unexpected section of Celestite (strontium sulphate) was on top of the Anhydrite section. One core was cut from 1780 m to 1782 m in the Celestite section with poor reservoir quality. Good shows were recorded on the core. After having cut the core, the well became unstable and was killed and cemented back to 1415 m and an unintentional sidetrack was made. The Paleocene section came in 10 m deeper in the redrilled hole. No fluid sample was taken in. Well 2/8 -13 was permanently abandoned 22 June 1989 as a dry hole with oil and gas shows.

Testing

No drill stem test was performed

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
380.00	1921.00

Borekaks tilgjengelig for prøvetaking?	YES

Borekjerner i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1780.0	1782.0	[m]

Total kjerneprøve lengde [m]	2.0
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder

1780-1782m

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
94	NORDLAND GP
730	UTSIRA FM
1215	HORDALAND GP
1760	ROGALAND GP
1760	LISTA FM
1763	VÅLE FM
1766	SHETLAND GP
1766	EKOFISK FM
1773	TOR FM
1775	ZECHSTEIN GP

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
1383	pdf	0.22

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
1383_01_WDSS_General_Information	pdf	0.28
1383_02_WDSS_completion_log	pdf	0.13

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
1383_2_8_13_COMPLETION_REPORT_AND_LOG	pdf	24.20

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL GR	925	1300
CST	1760	1924
DIL BHC GR SP	1237	1455
DLL BHC GR SP	1449	1753
DLL SDT GR SP	1757	1936
LDL CNL GR CAL	1237	1457
LDL CNL GR CAL	1449	1757
LDL CNL GR CAL	1757	1939
LDL LSS GR CAL	178	380
MWD - GR RES DIR	94	824
MWD - GR RES DIR	412	1780
SHDT GR	1449	1758
SHDT GR	1757	1934
VSP	260	1800

Foringsrør og formasjonsstyrketester

Type utforing	Utforing diam. [tommer]	Utforing dybde [m]	Brønnbane diam. [tommer]	Brønnbane dyp [m]	LOT/FIT slam eqv. [g/cm3]	Type formasjonstest
CONDUCTOR	30	178.0	36	183.0	0.00	LOT
INTERM.	20	374.0	26	380.0	1.60	LOT
INTERM.	13 3/8	1238.8	17 1/2	1255.0	1.85	LOT
INTERM.	9 5/8	1449.0	12 1/4	1457.0	1.98	LOT
LINER	7	1757.0	8 1/2	1783.0	2.18	LOT
OPEN HOLE		1940.0	5 7/8	1940.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
157	1.82	33.0	4.8	WATER BASED	30.05.1989
276	1.20			WATER BASED	03.05.1989
323	1.20			WATER BASED	03.05.1989
323	1.20			WATER BASED	03.05.1989
332	1.20			WATER BASED	03.05.1989
380	1.20			WATER BASED	03.05.1989
380	1.20			WATER BASED	08.05.1989
380	1.20	7.0	3.8	WATER BASED	08.05.1989
610	1.38	16.0	2.9	WATER BASED	16.05.1989
642	1.20	14.0	5.3	WATER BASED	09.05.1989
828	1.33	13.0	4.8	WATER BASED	09.05.1989
828	1.33	12.0	4.3	WATER BASED	09.05.1989
828	1.33	11.0	4.8	WATER BASED	09.05.1989
828	1.33	15.0	8.1	WATER BASED	10.05.1989
828	1.33	11.0	3.4	WATER BASED	11.05.1989
832	1.50	17.0	5.7	WATER BASED	16.05.1989
906	1.54	17.0	5.7	WATER BASED	18.05.1989
993	1.54	22.0	4.3	WATER BASED	18.05.1989
1204	1.56	18.0	9.1	WATER BASED	18.05.1989
1204	1.58	21.0	3.8	WATER BASED	19.05.1989
1255	1.61	27.0	7.7	WATER BASED	19.05.1989
1255	1.62	24.0	5.7	WATER BASED	19.05.1989
1255	1.61	21.0	5.7	WATER BASED	23.05.1989
1255	1.61	23.0	6.7	WATER BASED	23.05.1989
1255	1.61	21.0	5.7	WATER BASED	23.05.1989
1257	1.68	18.0	8.6	WATER BASED	23.05.1989

1260	1.80	23.0	2.4	WATER BASED	25.05.1989
1457	1.82	33.0	9.6	WATER BASED	25.05.1989
1457	1.82	34.0	9.6	WATER BASED	26.05.1989
1457	1.85	34.0	5.3	WATER BASED	30.05.1989
1524	1.89	31.0	6.2	WATER BASED	30.05.1989
1682	1.89	34.0	8.6	WATER BASED	30.05.1989
1780	1.87	27.0	3.8	WATER BASED	31.05.1989
1783	1.85	27.0	2.9	WATER BASED	02.06.1989
1783	1.85	24.0	2.9	WATER BASED	05.06.1989
1783	1.87	22.0	2.9	WATER BASED	05.06.1989
1783	1.87	27.0	3.8	WATER BASED	05.06.1989
1783	1.86	33.0	6.7	WATER BASED	06.06.1989
1783	1.88	39.0	9.1	WATER BASED	07.06.1989
1783	1.88	36.0	7.2	WATER BASED	08.06.1989
1783	1.88	32.0	7.2	WATER BASED	09.06.1989
1783	1.87	37.0	8.1	WATER BASED	13.06.1989
1783	1.87	37.0	8.1	WATER BASED	13.06.1989
1783	1.68	21.0	3.3	WATER BASED	13.06.1989
1783	1.87	28.0	4.8	WATER BASED	01.06.1989
1790	1.78	34.0	3.8	WATER BASED	14.06.1989
1800	1.78	38.0	4.8	WATER BASED	14.06.1989
1817	1.78	39.0	5.3	WATER BASED	15.06.1989
1908	1.78	36.0	5.3	WATER BASED	16.06.1989
1940	1.78	38.0	5.8	WATER BASED	19.06.1989
1940	1.78	36.0	5.8	WATER BASED	19.06.1989
1940	1.78	33.0	5.8	WATER BASED	19.06.1989
1940	1.78	33.0	6.3	WATER BASED	20.06.1989
1940	0.00			WATER BASED	21.06.1989
1940	0.00			WATER BASED	23.06.1989
1940	0.00			WATER BASED	23.06.1989